

CHAPTER 7

Appendix:
On the Road to Proficiency

Key Skills and Knowledge that all educators need to increase the participation and performance of students with diverse learning needs in standards-based environments.

S T A N D A R D S

- A teacher is a reflective practitioner who continually evaluates the effects of his/her choices on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.
- All teachers continually challenge their beliefs about how students with disabilities learn and how to teach them effectively.
- All teachers seek out current information and research about how to educate students with disabilities for whom they are responsible.
- All teachers know how to access resources about special education policies and procedures.

APPENDIX

QUICK VIEW

7

FOCUS

APPENDIX: ON THE ROAD TO PROFICIENCY

LINKING TO THE CORE CURRICULUM

WEBSITES



ONLINE COURSES ■ DOWNLOAD TRAINING MATERIALS ■ REVIEW INSTRUCTIONAL STRATEGIES



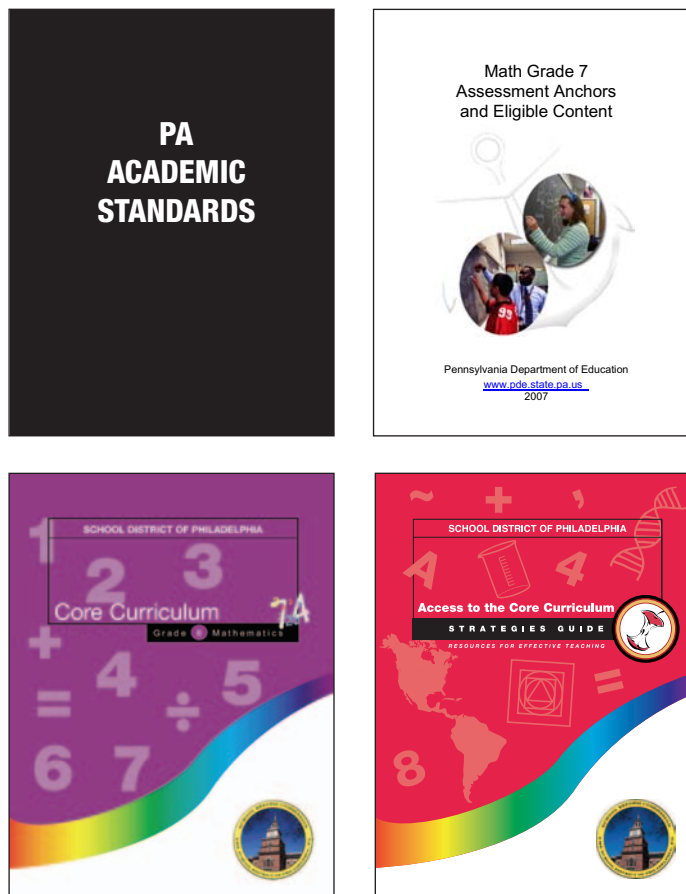
READ RESEARCH ■ DOWNLOAD LESSON PLANS

RESOURCES

1. Steps for using the Website References	7-5
2. Curriculum and Instruction Teacher Resources	7-6
3. Searching for Curriculum Units	7-7
4. Effective Instructional Practices	7-9
5. Effective Behavioral Support Practices	7-12
6. Explicit Instruction/Effective Classroom Practices/Components	7-15
7. Links to Learn More about Explicit Instruction	7-20
8. Structure and Phases of an Effective Lesson	7-23
9. Teaching Strategies for Students with Diverse Needs	7-24
10. Assessment Support Websites	7-28
Acknowledgements	7-29

On the Road to Proficiency

The body of the Access to the Core Curriculum Strategies Guide focused on knowledge acquisition and integration. You have come to what is “almost the end” of the guide, the appendix, having grappled with a significant amount of information and made sense of it.

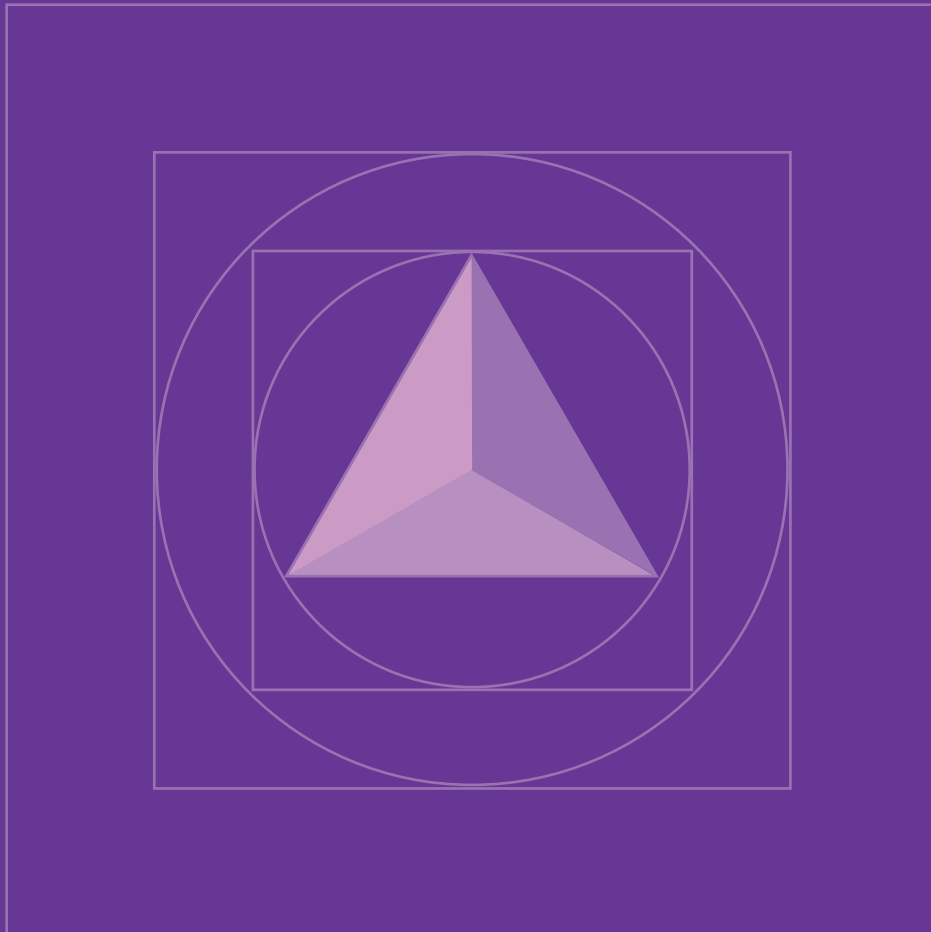


You have the SDP Core Curriculum, the PA Academic Standards, PA Assessment Anchors, and the Access to the Core Curriculum Strategies Guide in your hands; where do you want to go from here?

- Do you feel inspired to take an online course...for free?
- Do you want to read more?
- Are you asking what should instruction look like when you're working with students with diverse needs?
- Do you want to see research-based, effective instructional strategies in action?
- Do you want to watch video clips of a teacher teaching?

The websites outlined in this section will help you as you continue to extend and refine your knowledge base.

Appendix



R E S O U R C E S

1

Steps for Using the Website References

We have selected only those sites that will make the best use of your time as a learner and that will present material with efficiency and clarity of purpose.

We start with two School District of Philadelphia webpages that are critical to navigating our Core Curriculum: the Office of Curriculum and Instruction webpage and the SchoolNet Instructional Management System website.

For these two web references we give you detailed written and visual instructions for reaching some of the highpoints of these sites. Subsequent website references will give you:

- The name of the site
- The hyperlink to get you to the site
- A brief description of the site content
- A brief description of one activity that we are recommending the site for

TITLE	Curriculum & Instruction Teacher Resources, School District of Philadelphia
WEB ADDRESS	http://www.phila.k12.pa.us/offices/curriculum/supports/index.html
DESCRIPTION	<p>CONTENT This School District of Philadelphia website contains materials supportive to the SDP Core Curriculum. Select the C&I resource desired from the pull-down menu: ex., Course of Study for grades K-3, 4-5, 6-8 and 9-12; Prerequisites and Required Skills; SDP Approved Materials Lists for grades K-8 and 9-12</p> <p>ACTIVITIES Download materials that will help you navigate the SDP Core Curriculum</p>

Using the Curriculum and Instruction website to search for Teacher Resources

1. Open your browser and go to <http://www.phila.k12.pa.us/offices/curriculum>
2. You will see a sidebar menu option, "C and I Support"
3. Click on C & I Menu.... and a menu will drop down, here you will find resources referred to in Chapters 3 and 4, Planning and Delivering Instruction.
4. Try it out, click on and select

Writing Plans	Approved Materials List
Course of Study	Math Supports
Prerequisites	

Using SchoolNet to Search for Curriculum and Curricular Units

3

TITLE	Searching for Curriculum and Curricular Units, School District of Philadelphia
WEB ADDRESS	http://phila.schoolnet.com/Align/Home.aspx
DESCRIPTION	<p>CONTENT This School District of Philadelphia website contains materials supportive to the SDP Core Curriculum. Select the C&I resource desired from the pull-down menu: ex., Course of Study for grades K-3, 4-5, 6-8 and 9-12; Prerequisites and Required Skills; SDP Approved Materials Lists for grades K-8 and 9-12</p> <p>ACTIVITIES Download materials that will help you navigate the SDP Core Curriculum</p>

1. Open your browser and go to <http://phila.schoolnet.com/Align/Home.aspx>
2. From the Align Home Page, click the **Materials** menu. The Instructional Materials page displays.
3. Click the **Curriculum** tab to display the curriculum page. The Curriculum Finder page displays.

Note: To display all curricula, leave all Search fields and drop-downs empty and click Search.

4. Click **Search**. The Results page displays curriculum which meet your search criteria (if any), listed in alphabetical order by name (regardless of subject) along with the corresponding grade range, subject, and number of courses that use each curriculum.
5. Click the linked title of the curriculum you want to view. The Curriculum Detail page displays, listing any subjects, standards, course mappings, and properties associated with it.

You can click the:

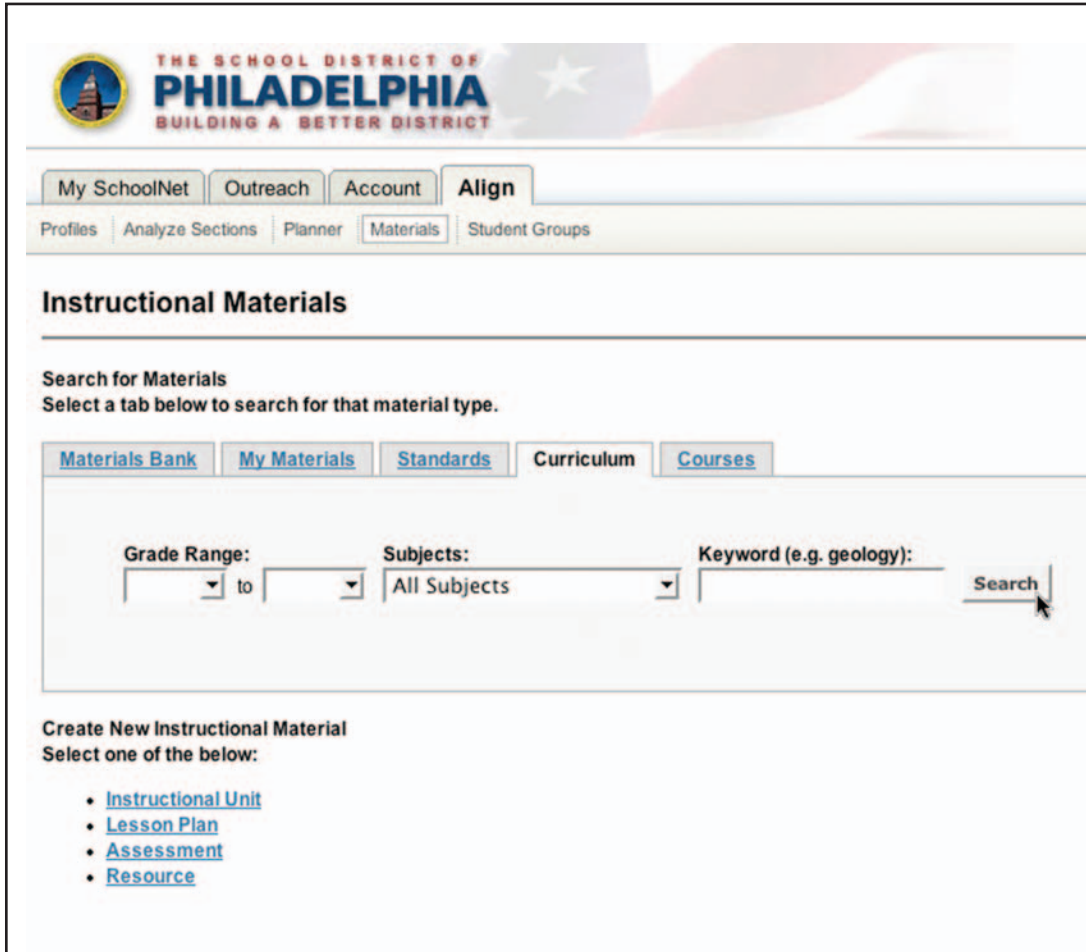
Scope and Sequence link or tab to see details for all curricular units within a given curriculum.


Standards link or tab to see a complete inventory of instructional materials aligned to the standard.

Course Mappings link or tab to see all courses mapped to the curriculum.

Create a new mapping link to map the curriculum to a course.

Properties link or tab to see a complete list of the curriculum properties (e.g., title, grade range, description, author, ID, publisher, cost, restricted use, etc.)



 THE SCHOOL DISTRICT OF
PHILADELPHIA
BUILDING A BETTER DISTRICT

My SchoolNet Outreach Account **Align**

Profiles Analyze Sections Planner **Materials** Student Groups

Instructional Materials

Search for Materials
Select a tab below to search for that material type.

[Materials Bank](#) [My Materials](#) [Standards](#) Curriculum [Courses](#)

Grade Range: to Subjects: All Subjects Keyword (e.g. geology):

Create New Instructional Material
Select one of the below:

- [Instructional Unit](#)
- [Lesson Plan](#)
- [Assessment](#)
- [Resource](#)

Effective Instructional Practices

TITLE	The Council for Exceptional Children (CEC)
WEB ADDRESS	http://www.cec.sped.org/am/template.cfm?section=Home
DESCRIPTION	<p>CONTENT</p> <p>This site provides information on all aspects of the education and development of students with disabilities and/or those who are gifted: newsletters with information on new research findings, classroom practices that work, legislation, policies; professional development opportunities and resources; conventions and conferences; Special Education publications</p> <p>ACTIVITIES</p> <p>Read or subscribe to newsletters</p>

TITLE	The IRIS (IDEA and Research for Inclusive Settings) Center for Faculty Enhancement											
WEB ADDRESS	http://www.cec.sped.org/am/template.cfm?section=Home											
DESCRIPTION	CONTENT IRIS materials on this site are organized according to the topic areas listed below. Under each topic you will find relevant resources such as case study units, interactive learning modules, information briefs, activities, and searchable indices: <table><tr><td>Accommodations</td><td>Differentiated Instruction</td><td>Diversity</td></tr><tr><td>Behavior</td><td>Response to Intervention</td><td>IDEA</td></tr><tr><td>Collaboration</td><td>Disabilities</td><td>Transition</td></tr></table> ACTIVITIES Take an online course using the interactive learning modules			Accommodations	Differentiated Instruction	Diversity	Behavior	Response to Intervention	IDEA	Collaboration	Disabilities	Transition
Accommodations	Differentiated Instruction	Diversity										
Behavior	Response to Intervention	IDEA										
Collaboration	Disabilities	Transition										

TITLE	Center on Instruction, U.S. Department of Education Comprehensive Centers
WEB ADDRESS	http://www.centeroninstruction.org/index.cfm
DESCRIPTION	<p>CONTENT</p> <p>This site is a cutting-edge collection of scientifically based research and information on K-12 instruction in reading, math, science, Special Education, and English language learning. The Special Education section of the website contains research-based materials on instruction, as well as research syntheses and exemplars of best practices. Resources are currently available for Grades K-3 and Grades 4-12.</p> <p>ACTIVITIES</p> <p>Download materials on effective instructional practices</p>

TITLE	The eLearning Design Laboratory
WEB ADDRESS	http://elearndesign.org/index.html
DESCRIPTION	<p>CONTENT This website presents both eDL Online Modules and Online Academy Modules. For example, the Online Academy Reading Modules give an overview of learning disabilities and reading disabilities, covers beginning and advanced word reading, developing reading fluency, basic principles in reading comprehension, building background knowledge for reading comprehension, analyzing text to enable comprehension, and goal specific comprehension strategies. The Positive Behavioral Support Modules cover the foundations of PBS, functional assessment, development and implementation of PBS plans, intervention strategies, and redesigning environmental systems. There is also a Technology in Education Module.</p> <p>ACTIVITIES Take an online course in reading for Special Education, positive behavior support, or technology in education</p>

TITLE	Florida Center for Reading Research, Florida State University
WEB ADDRESS	http://www.fcrr.org/
DESCRIPTION	<p>CONTENT A web site that makes research based information about reading available in a user-friendly form. Disseminates information about research-based practices related to literacy instruction and assessment for children in pre-school through 12th grade. Includes recent presentations by FCRR faculty.</p> <p>ACTIVITIES View a video overview of screening and progress monitoring with DIBELS or a video presentation of the correct pronunciation of consonants and vowels in standard English</p>

TITLE	Big Ideas in Beginning Reading, University of Oregon
WEB ADDRESS	http://reading.uoregon.edu/
DESCRIPTION	<p>CONTENT This website is designed to provide information, technology, and resources to teachers, administrators, and parents. It focuses on the five big ideas of early literacy: phonemic awareness, alphabetic principle, fluency with text, vocabulary, and comprehension. The website includes definitions and descriptions of the research and theories behind each of the big ideas, describes how to assess the big ideas, and gives information on how to teach the big ideas including instructional examples. activities.</p> <p>ACTIVITIES View video clips on the Big Ideas, assessment, and instruction in reading.</p>

RESOURCES

7

TITLE	Vaughn Gross Center for Reading and Language Arts, University of Texas at Austin
WEB ADDRESS	http://www.texasreading.org/utcrla
DESCRIPTION	<p>CONTENT</p> <p>The Center emphasizes scientifically based reading research and instruction through its research, technical assistance, and professional development projects dedicated to improving reading instruction for struggling readers, English language learners, and Special Education students. The site has products related to effective reading instruction for prekindergarten, primary, and secondary students: professional development guides, videos, CD-ROMs, and booklets address a range of reading topics, including phonological awareness, phonics, fluency, vocabulary, and comprehension</p> <p>ACTIVITIES</p> <p>Download products and publications</p>

TITLE	MathVIDS: Video Instructional Development Source, James Madison University
WEB ADDRESS	http://coe.jmu.edu/mathvidsr
DESCRIPTION	<p>CONTENT</p> <p>MathVIDS is an interactive website for teachers of students who are having difficulty learning mathematics. MathVIDS incorporates video clips of teachers modeling each instructional strategy, detailed text descriptions of the instructional strategies, as well as step-by-step procedures for implementing the strategy, and teaching plans that describe how the effective instructional strategies can be implemented in an integrated way to teach specific math concepts.</p> <p>ACTIVITIES</p> <p>Access interactive descriptions and video models of the instructional strategies included in this program</p>

Effective Behavior Support Practices

TITLE	National Technical Assistance Center on Positive Behavioral Interventions and Supports (PBIS)
WEB ADDRESS	http://www.pbis.org/main.htm
DESCRIPTION	<p>CONTENT</p> <p>This site advances positive behavior support (pbs), a behaviorally-based systems approach to designing effective environments that improve the link between research-validated practices and schools. Attention is focused on creating and sustaining primary (school-wide), secondary (classroom), and tertiary (individual) systems of support that improve lifestyle results for all children and youth by making problem behavior less effective, efficient, and relevant, and desired behavior more functional. This website gives schools capacity-building information and technical assistance for identifying, adapting, and sustaining effective school-wide disciplinary practices</p>

TITLE	Center for Evidence-Based Practice: Young Children with Challenging Behavior, University of South Florida
WEB ADDRESS	http://www.challengingbehavior.org
DESCRIPTION	<p>CONTENT</p> <p>This site focuses on positive behavior support (PBS) and young children. This resource link has recommended practices handouts, research reports that synthesize existing knowledge, and powerpoint presentations.</p> <p>ACTIVITIES</p> <p>View training modules with video</p>

TITLE	Center on the Social and Emotional Foundations for Early Learning, University of Illinois at Urbana-Champaign
WEB ADDRESS	http://www.challengingbehavior.org
DESCRIPTION	<p>CONTENT</p> <p>The Center develops and disseminates evidence-based, user-friendly information to help educators meet the needs of children with challenging behaviors and mental health challenges in child care and Head Start programs. The content of the training modules on this site are consistent with identified evidence-based practices. What Works Briefs are summaries of effective practices for supporting children's social-emotional development and preventing challenging behaviors. The Briefs describe practical strategies, provide references to more information about the practice, and include a one-page handout that highlights the major points of the Brief.</p> <p>ACTIVITIES</p> <p>Download practice strategies and training modules</p>

RESOURCES

7

TITLE	Center for Effective Collaboration and Practice
WEB ADDRESS	http://www.pbis.org/main.htm
DESCRIPTION	<p>CONTENT Textensive collection of web links related to emotional and behavioral problems in the areas of education, families, mental health, juvenile justice, child welfare, early intervention, school safety, and legislation. The Center advocates a policy of collaboration at Federal, state, and local levels that contributes to the production, exchange, and use of knowledge about effective practices. The website contains research-based articles, practical information for parents and professionals.</p> <p>ACTIVITIES Download prevention strategies that work</p>

TITLE	Association for Positive Behavior Support
WEB ADDRESS	http://www.apbs.org/main.htm
DESCRIPTION	<p>CONTENT The Association for Positive Behavior Support is an international organization dedicated to the advancement of positive behavior support. APBS strives to expand application of this approach with children, adolescents, and adults with problem behavior. The website addresses what is positive behavior support, gives PBS examples, and provides opportunities for online learning.</p> <p>ACTIVITIES Link to an Online Academy for a no-cost online course</p>

TITLE	Freebies 2003: A Practical Guide for Finding Free Reinforcers
WEB ADDRESS	http://kipbs.org/freebies2003/
DESCRIPTION	<p>CONTENT This booklet is a compilation of tried and true resources, activities, and guidelines for parent volunteers, educators, and students who are searching for freebies. In the Table of Contents are step by step instructions for writing request and thank you letters. Templates for these letters have been provided as well as resource lists available in each section of this booklet. When appropriate, information, examples, and resources are provided by grade level.</p> <p>ACTIVITIES Download the file in PDF format</p>

7

APPENDIX

TITLE	The Child and Family WebGuide, Tufts University
WEB ADDRESS	http://www.cfw.tufts.edu
DESCRIPTION	<p>CONTENT The Child & Family WebGuide describes trustworthy websites on topics of interest to parents and professionals. All the sites listed on the WebGuide have been systematically evaluated by graduate students and faculty in child development. These sites have been selected from thousands that are available on the Web, based primarily on the quality of the information they provide. The goal of the WebGuide is to give the public easy access to the best child development information on the Web.</p> <p>ACTIVITIES See a list of relevant websites selected for the quality of the information provided</p>

6

Explicit Instruction

EFFECTIVE CLASSROOM PRACTICES REPORT

by Tracey Hall, Ph.D., Senior Research Scientist, NCAC

Introduction

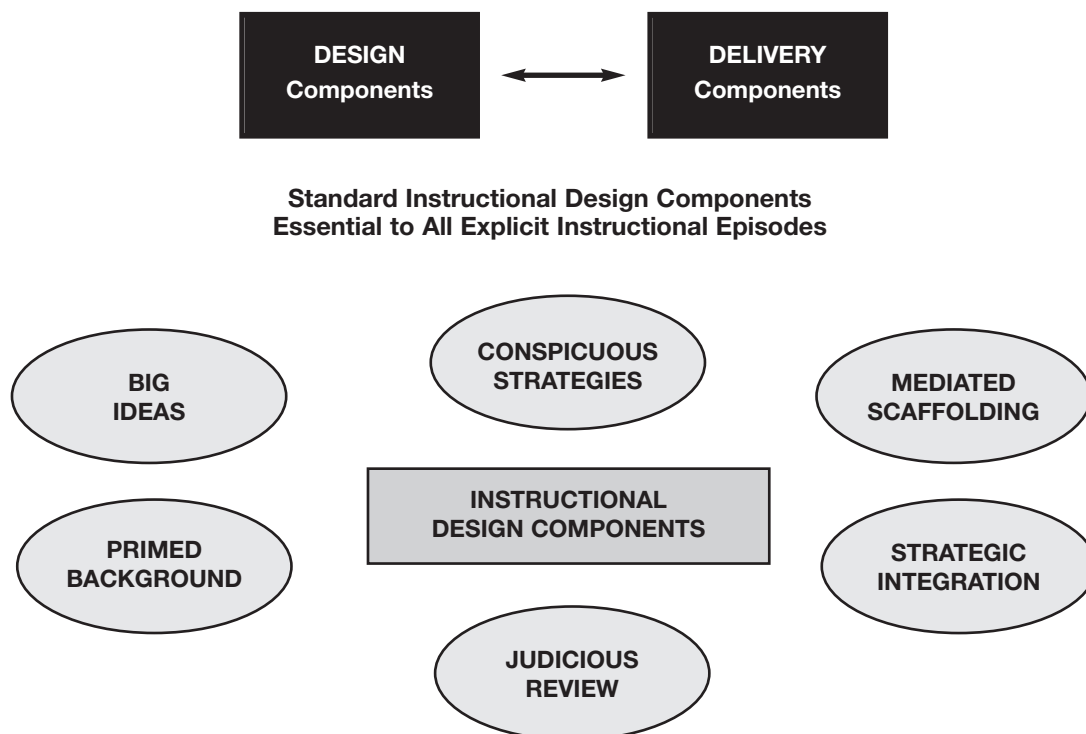
The teaching practice of explicit instruction has been available to classroom teachers since the late 1960s. Substantial research has been conducted on components and the complete instructional “package”. As with many teaching practices, there are varying degrees of adaptation and acceptance. The effective teaching practices research identified most—if not all—of the components of explicit instruction as essential for positive student outcomes (e.g., Rosenshine & Stevens, 1986; Ellis & Worthington, 1995).

Definition

Explicit instruction is a systematic instructional approach that includes a set of delivery and design procedures derived from effective schools research merged with behavior analysis. There are two essential components to well designed explicit instruction: (a) visible delivery features – group instruction with a high level of teacher and student interactions, and (b) the less observable, instructional design principles and assumptions that make up the content and strategies to be taught.

Identifying Components

Explicit instruction consists of essential:



Identifying Components *(continued)*

BIG IDEAS

Big ideas function as the keys that unlock content for the range of diverse learners. Those concepts, principles or heuristics facilitate the most efficient and broadest acquisition of knowledge. Teaching using big ideas is one promising means of striking a reasonable balance between unending objectives and no objectives at all.

CONSPICUOUS STRATEGIES

People accomplished at complex tasks apply strategies to solve problems. Empirical evidence suggests that all students in general, and diverse learners in particular, benefit from having good strategies made conspicuous for them. This, paired with great care taken to ensure that the strategies are well-designed, results in widely transferable knowledge of their application.

MEDIATED SCAFFOLDING

This temporary support/guidance is provided to students in the form of steps, tasks, materials, and personal support during initial learning that reduces the task complexity by structuring it into manageable chunks to increase successful task completion. The degree of scaffolding changes with the abilities of the learner, the goals of instruction, and the complexities of the task. Gradual, planned removal of the scaffolds occurs as the learner becomes more successful and independent at task completion. Thus, the purpose of scaffolding is to allow all students to become successful in independent activities. There are at least two distinct methods to scaffold instruction – teacher assistance and design of the examples used in teaching.

STRATEGIC INTEGRATION

One instructional design component, strategic integration, combines essential information in ways that result in new and more complex knowledge. Characteristics of strategic instruction include: a) curriculum design that offers the learner an opportunity to successfully integrate several big ideas, b) content that is applicable to multiple contexts, and c) potentially confusing concepts and facts that are integrated once mastered. The strategic integration of content in the curriculum can help students learn when to use specific knowledge beyond classroom application.

JUDICIOUS REVIEW

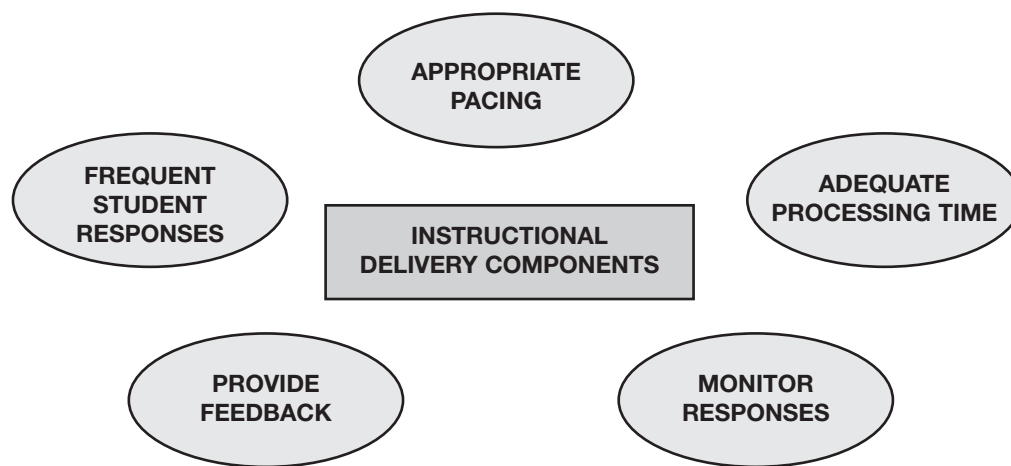
Effective review promotes transfer of learning by requiring application of content at different times and in different contexts. Educators cannot assume that once a skill is presented and “in” the learner’s repertoire that the skill or knowledge will be maintained. Planned review is essential to ensure that students maintain conceptual and procedural “grasp” of important skills and knowledge (Big Ideas). Judicious review requires that the teacher select information that is useful and essential. Additionally, review should be distributed, cumulative, and varied.

Requirements for review will vary from learner to learner. To ensure sufficient judicious review for all learners, teachers must regularly monitor progress of the students to inform continued instruction and needed review activities. Review that is distributed over time, as opposed to massed in one learning activity/unit, contributes to long-term retention and problem solving.

PRIMED BACKGROUND KNOWLEDGE

Acquisition of new skills and knowledge depends largely upon a) the knowledge the learner brings to the task, b) the accuracy of that information, and c) the degree to which the learner can access and use that information. Priming background knowledge is designed to strategically cultivate success by addressing the memory and strategy deficits learners may bring to the new task. The functions of priming background knowledge are to increase the likelihood that students will be successful on new tasks by making explicit the critical features, and to motivate learners to access knowledge they have in place.

Standard Instructional Delivery Components Essential to All Explicit Instructional Episodes



REQUIRE FREQUENT STUDENT RESPONSES

When students actively participate in their learning, they achieve greater success. The teacher must elicit student responses several times per minute, (for example ask students to say, write, or do something). Highly interactive instructional procedures keep students actively engaged, provide students with adequate practice, and help them achieve greater success.

APPROPRIATE INSTRUCTIONAL PACING

Pacing is the rate of instructional presentations and response solicitations. The pace of instruction is influenced by many variables such as task complexity or difficulty, relative newness of the task, and individual student differences. When tasks are presented at a brisk pace, three benefits to instruction are accomplished: (a) students are provided with more information, (b) students are engaged in the instructional activity, and (c) behavior problems are minimized (students stay on-task when instruction is appropriately paced).

PROVIDE ADEQUATE PROCESSING TIME

Think time (adequate processing time) is the amount of time between the moment a task is presented and when the learner is asked to respond. Time to pause and think should vary based on the difficulty of the task relative to the student(s). If a task is relatively new, the amount of time allocated to think and formulate a response should be greater than that of a task that is familiar and in the learners' repertoire.

Identifying Components *(continued)*

MONITOR RESPONSES

This is an essential teacher skill to ensure that all learners are mastering the skills the teacher is presenting. Watching and listening to student responses provides the teacher with key instructional information. Adjustments may be made during instruction. Teachers should be constantly scanning the classroom as students respond in any mode.

PROVIDE FEEDBACK FOR CORRECT AND INCORRECT RESPONSES

Students should receive immediate feedback to both correct and incorrect responses. Corrective feedback needs to be instructional and not accommodating. Feedback to reinforce correct responses should be specific. Feedback should not interfere with the timing of the next question/response interaction of the teacher and student. Feedback that does not meet these criteria can interrupt the instructional episode and disrupt the learner's ability to recall.

Implications for Access to the General Curriculum

"Declarative, procedural and conditional knowledge are necessary ingredients for strategic behavior. Students can learn about these features of reading through direct instruction as well as by practice. Part of a teacher's job is to explicate strategies for reading so that students will perceive them as useful and sensible." (Paris, S. G. 1986 p. 17).

Programs using explicit instruction have been researched extensively across classrooms by grade (preschool through adult) and by ability (special and General Education settings) since the mid-1960s. General Education classrooms in these studies were most often typical settings, with diverse students, including students at-risk for academic failure, economically disadvantaged students, and students with disabilities. Additionally, applications of explicit instruction incorporate the range of school content areas including reading (decoding and comprehension), mathematics, language arts, history/social studies, science, health, art and music education.

One of the most visible implementations of Direct Instruction in public schools is Wesley Elementary in Houston, TX. When the school began implementation of instruction using direct instruction, fifth grade students were almost two years below grade level. After four years of implementation, the third, fourth and fifth grade students were performing 1 to 1.5 years above grade level. All students scored above the 80th percentile in both reading and mathematics on the district evaluation. Wesley School continues these effective practices school-wide and continues to have exemplary scores on district, state, and national assessment.

It has been thought that teaching using explicit instruction is most beneficial for low performing students and students in Special Education. However, the results from extensive research repeatedly indicate that all students benefit from well-designed and explicitly taught skills

Evidence of Effectiveness

A meta-analysis conducted by G. Adams yielded over 350 publications (articles, books, chapters, convention presentations, ERIC documents, thesis, dissertations and unpublished documents) on various forms of studies conducted on Explicit Instruction. Criterion for inclusion limited the analysis to 37 research publications that met four groupings: (a) regular education, (b) Special Education, (c) the National Follow-Through project, and (d) follow-up studies. Some example findings include:

- In this meta-analysis, Adams found that the mean effect size per study using explicit instruction is more than .75 (Effects of .75 and above in education are extraordinary). Accordingly, this confirms that overall effect of explicit instructional practices is substantial. Thirty-two of the 34 studies analyzed had statistically significant positive effect sizes. The authors find the consistent attainment of research with substantial effect sizes is further evidence that explicit instruction is an effective instructional practice for all students. The authors conclude that although Direct Instruction is often described as a program for students in Special Education, the effect sizes calculated in this meta-analysis are nearly the same, thus indicating the teaching strategy is effective for students in General Education as well as those identified with disabilities.
- National Follow-Through Project: Students receiving explicit instruction in reading, mathematics, language and spelling achieved well in these basic skills, as well as reading comprehension, problem solving, and math concepts.
- National Follow-Through Project: Student scores were above other treatment conditions in the affective domain as well as the academic. This suggests that competence in school-related skills, enhances self-esteem. "Critics of the model have predicted that the emphasis on tightly controlled instruction might discourage children from freely expressing themselves and thus inhibit the development of self-esteem. In fact, this is not the case." (Abt IVB, p. 73)
- Review of the research on beginning reading using explicit instruction strategies reported that students considered disadvantaged and students with diverse needs, like other students, benefit most from early and explicit teaching of word recognition skills, including phonics.
- Carnine and colleagues empirically evaluated effective delivery components essential to explicit instruction to validate each in relation to student outcomes for a range of students by ability and by age.

Links to Learn More About Explicit Instruction

An Educator's Guide to School Wide Reform

<http://www.aasa.org/reform/approach/direct.htm>

This guide was prepared for educators and others to use when investigating different approaches to school reform. It reviews the research on twenty-four “whole-school”, “comprehensive” or “school-wide” approaches.

University of North Carolina at Wilmington – Department of Special Studies

<http://www.uncwil.edu/people/kozloffm/>

This is the homepage of Martin Kozloff who is a Watson distinguished professor at UNC, Wilmington. He is committed to improving education and is particularly interested in direct instruction. He has written numerous papers and books on this topic.

National Center to Improve the Tools of Educators

<http://idea.uoregon.edu/~ncite/>

The purpose of this National Center, NCITE, is to advance the quality and effectiveness of technology, media and materials for individuals with disabilities. NCITE creates a marketplace demand for the selection and appropriate use of research-based technology, media and materials (TMM). They are involved in various education projects.

How Phonics Instruction Teaches Critical Thinking Skills

<http://projectpro.com/ICR/Phonics/CriticalThinking.htm>

This site provides information on how to effectively teach using phonics and the benefits associated with it. Data from the study resulting from the Project Follow-Through is provided, the site authors illustrate how explicit instruction supports the use of comprehensive, systematic phonics in teaching young children to read.

School Improvement in Maryland – Project BETTER/Thinking and Learning

http://www.mdk12.org/practices/good_instruction/projectbetter/thinkingskills/ts-31-32.html

This Web site illustrates the implementation of explicit instruction in reading. “Teachers who provide students with information about reading skills and strategies through direct explanation and the gradual transfer of responsibility help their students become independent learners because they provide both the means and the motivation for becoming better readers.”

References

Adams, G. L., & Engelmann, S. (1996). *Research in Direct Instruction: 25 Years Beyond DISTAR*. Seattle, WA: Educational Achievement Systems.

Adams and Engelmann present a description of direct instruction and a meta-analysis of research on direct instruction. The authors summarize and report years of research on school implementation data on explicit instruction. This research clearly demonstrates that direct instruction program implementations were successful with the full range of teacher and student populations.

Deshler, D. D., & Schumaker, J. B., (1989). An instructional model for teaching students how to learn. In J.L. Graden, J. E. Zins, & M.J. Curtis (Eds.) *Alternative Educational Delivery Systems: Enhancing Instructional outcomes for all students*. Pp. 391-411. Bethesda, MD: National Association of School Psychologists.

This book provides a description of how instruction most effectively occurs for all students when teaching strategies. Deshler and colleagues describe the key components and instructional progression to teach the Strategies Intervention Model. The recommendations and strategies described are empirically validated across settings, teachers and students.

Jones, B. F. (1986). Quality and equality through cognitive instruction. *Educational Leadership*, 43, 4-11

The authors of this article provide rationale for direct instruction in cognitive strategies that includes higher-level thinking and provides growth in all levels of thinking for all students.

Kameenui, E. J. & Carnine, D. W. (1998). *Effective teaching strategies that accommodate diverse learners*. Upper Saddle River, NJ: Prentice-Hall, Inc.

Kameenui and Carnine focus this text on the specifics of teaching, instruction and curricula necessary to provide diverse learners a fighting chance in today's settings, in- as well as out-side the classroom. The authors describe concrete examples of how six key concepts (big ideas) in reading, mathematics, science, social studies and writing are taught, scaffolded, integrated and supported.

Kameenui, E.J., & Simmons, D. C. (1990). *Designing instructional strategies: The prevention of academic learning problems*. Columbus, OH: Merrill Publishing Co.

This text is designed for those who are teaching students who are at-risk for academic failure, students with learning disabilities, cognitive disabilities, or are emotionally disturbed. It is about the design and delivery components essential to effective instruction in special and General Education settings. The authors provide information based on the premise that the technology of instruction is available to make positive differences for children's academic performance.

Kameenui, E. J. & Simmons, D.C. (1999). *Toward successful inclusion of students with disabilities: The architecture of instruction. Vol. 1: An overview of Materials adaptations*. Reston, VA: Council for Exceptional Children.

The authors have written this booklet as a part of the ERIC/OSEP Mini-Library and designed to assist educators engaged in curriculum adaptations for learners of all abilities in today's schools. This is the first of three volumes and it provides an overview regarding fundamental principles of curriculum adaptations.

Madigan, Hall, & Glang (1997). Effective assessment and instructional practices for students with ABI. In A. Glang, G H.S. Singer, & B. Todis (Eds.) *Students with Acquired Brain Injury: The School's Response*. Pp. 123-184. Baltimore, MD: Brookes Publishing Co.

The focus of this book is on educational issues relating to students with acquired brain injury (ABI), and describes approaches that have been effective in improving the school experiences for students with ABI. The chapter by Madigan, Hall, and Glang provides the reader with a description and case study examples regarding planning and carrying out instruction for students with ABI using explicit teaching procedures for the design and delivery of instruction.

Paris, S. G. (1986). Teaching children to guide their reading and learning. In T.E. Raphael (Ed.), *The contexts of school-based literacy*, Pp. 115-130. New York: Random House.

This chapter provides a rationale for direct instruction in reading strategies and describes a program (Informed Strategies for Learning) to provide direct instruction in comprehension that includes declarative, procedural, and conditional information about strategies.

Pearson, P.D., & Dole, J. A. (1987). Explicit comprehension instruction: A review of research and new conceptualization of instruction. *Elementary School Journal*, 88 (2)

This article is a synthesis of research on three explicit instruction applications to comprehension instruction, reciprocal teaching, process training, and inference training. The authors conclude that we teach comprehension more effectively when using these explicit instructional approaches than by following the traditional basal reading paradigm of mentioning, practicing and assessing.

Roehler, L. R., Duffy, G. G., and Meloth, M. S. (1984). What to be direct about in direct instruction in reading: Content-only versus process-into-content. In Raphael, T. E. (Ed.), *The contexts of school-based literacy*, pp. 79-95. New York: Random House

The authors argue for explicit instruction in reading processes and provide examples with particular references to low-aptitude students.

Rosenshine, B. (1997). Advances in research on instruction. In J.W. Lloyd, E.J. Kameenui and D. Chard (Eds.) *Issues in educating students with disabilities* Pp. 197-221. Mahway, N. J.: Lawrence Earlbaum

In this chapter, Rosenshine presents research-based instructional advancements from three bodies of research including (a) cognitive processing, (b) teacher effectiveness, and (c) cognitive strategies as applied to student learning. This research allows educators to articulate and implement a major goal of education; "helping students develop well-organized knowledge structures" (p. 217).

Tarver, S. G., (1996). Direct Instruction. In (W. Stainback and S. Stainback (Eds.) *Controversial Issues Confronting Special Education: Divergent Perspectives (Second Ed.)* Pp. 143-165. Boston: Allyn Bacon.

In this book chapter, Sara Tarver provides a clear and systematic explanation of direct instruction by means of a comparison to the constructivist/holistic approach. Here the author makes the case that effective instruction must incorporate principles from both behaviorism and holism.

Structure and Phases of an Effective Lesson

Opening

Reviewing Previous Day's Learning

- Teacher requires students to verbalize meaning of concepts
- Teacher requires students to apply the concepts to problems
 - Teacher links new information to prior learning

Communicating Lesson Goals and Expectations

- Teacher explicitly states the goals of the lessons

Preparing Students for the Upcoming Lesson's Activities

- Teacher communicates what is to be learned
- Teacher communicates what students will be doing
- Teacher communicates why the lesson is important

Body

Active Demonstration and Modeling

- Teacher models concepts, rules, or procedures by focusing student attention on relevant dimensions, providing examples and non-examples
- Teacher actively presents concepts, explains processes, and demonstrates how students should regulate, monitor, and use a concept, rule or procedure to accomplish a goal

Prompting and Cueing

- Teacher engages students in high levels of responding through which the teacher focuses attention on the relevant features of the concept

Controlled or Guided Practice

- Teachers provide students controlled or guided practice of the concept or rule of procedure being learned
- Teacher models the procedure or response by verbalizing the steps or the correct response aloud and then leads students to perform the response using prompts or cues to guide them through rehearsal of each procedural step

Closing

Reviewing the Learning

- Teacher provides students with sufficient practice to ensure that students are confident and firm in the skill

Communicating Lesson Goals and Expectations

- Teacher fades prompts and cues as students become independent
- Teacher systematically provides feedback to students until they are consistently correct

Teaching Strategies for Students With Diverse Learning Needs

General Classroom Tips For Meeting Diverse Learning Needs

(Selecting and using some of these approaches on occasion can add variety to teaching and can help learners master the concepts of a lesson.)

- Relate the class lesson to real life skills and experiences
- Limit expectations to two or three concepts per unit
- Evaluate projects rather than doing traditional testing
- Concentrate on student strengths and apply those strengths to the lesson
- Use concise written and oral directions
- Use short answers rather than long essay responses
- Create small group activates
- Provide lecture outlines
- Pre-teach vocabulary, draw pictures, use concept mapping, webbing, organizers, and simplified vocabulary
- Be aware of academic levels in order to address reading and vocabulary problems
- Model assignment expectations and show an example of the end product
- Use multiple intelligence approaches when teaching the same lesson

Adaptations To Meet Student Needs In Specific Skill Areas

(These suggestions may be useful with more specific kinds of learning needs, but are beneficial to many other students in the same classroom.)

When the Student Experiences Difficulty with Reading:

- Allow partner reading
- Use peer tutoring
- Use taped materials (text or study guides)
- Use videos with advanced organizer
- Use computer games e.g., Oregon Trail, Carmen San Diego
- Allow students to read aloud quietly (sub-vocalization)
- Teach self-questioning
- Paraphrase key points and have students paraphrase them
- Summarize key points and have students summarize them
- Use graphic organizers
- Sequence key points
- Identify main ideas
- Identify the 5 Ws: who, what, when, where, why
- Allow students to highlight texts, passages, key words, or concepts
- Preview units, chapters, etc.
- Use visual imagery
- Use pre and post-reading activities to pre-teach or reinforce main ideas
- Explain idioms that appear in reading passages
- Allow silent pre-reading
- Use new vocabulary and concepts contained in a reading passage, give a preparatory talk about the assignment

- Use Post-it notes for organization
- Provide note-takers
- Allow the student to dictate the written assignment into a tape recorder
- Allow the student to use a computer for outlining, word-processing, spelling, and grammar check

When Students Experience Difficulty with Writing

- Allow them to dictate ideas to peers
- Shorten writing assignments
- Require lists instead of sentences
- Use Post-it notes for organization
- Provide note-takers
- Allow the student to dictate the written assignment into a tape recorder
- Allow the student to use a computer for outlining, word-processing, spelling, and grammar check
- Provide a fill-in-the-blank for note-taking
- Allow visual representation of ideas
- Allow collaborative writing
- Provide a structure for the writing
- Provide a writing model for the assignment
- Allow the use of a flow chart for composing ideas before the student writes them
- Narrow the choice of topics
- Grade on the basis of content, and do not penalize for errors in mechanics and grammar
- Allow the student to use different writing utensils and paper
- Allow writing/recording choices: manuscript, cursive, keyboarding
- Allow student to use a different position for writing paper or a different surface

When Students Experience Difficulty with Speaking

- Give sentence starters
- Use visuals
- Use graphic organizers for ideas and relationships
- Allow extra response time for processing
- Say student's name, then state the question
- Use cues and prompts to help student know when to speak
- Use partners
- Phrase questions with choices embedded in them
- Use choral reading or speaking
- Use rhythm or music
- Allow practice opportunities for speaking

When Students Experience Difficulty with Attending

- Use preferential seating
- Use proximity to measure on task behavior
- Build in opportunities for movement within a lesson
- Use self-monitoring strategies
- Provide a structure for organization
- Help students set and monitor personal goals
- Provide alternative work areas
- Decrease distractions
- Use active learning to increase opportunities for student participation
- Provide opportunities to change tasks or activities more frequently
- Have small, frequent tasks
- Provide reminder cues or prompts
- Use private signals to cue appropriate behavior for more difficult times
- Teach skills of independence, i.e., paying attention
- Provide definite purposes and expectations, especially during unstructured activities

When Students Experience Difficulty with Attending *(continued)*

- Prepare the learner for changes in routine
- Use the computer
- Use graphic organizers
- Reduce assignment length

When Students Experience Difficulty with Hearing

- Provide preferential seating
- Use visual cues (overheads, drawing, maps, demonstrations, visual samples of new vocabulary.
- Face the student directly when speaking
- Emphasize key points (don't overload with information)
- Repeat or rephrase what other students say. Often hearing what other students say is difficult for students with hearing impairments.
- Highlight texts/study guides
- Assist with note-taking during lectures to allow students with hearing impairments to concentrate on the teacher
- Use peer tutoring
- Use study sheets to organize information
- Pre-teach vocabulary
- Use captioned videos, films, etc.
- Show videos or other visuals before presenting information to provide a knowledge base for students
- Use alternative testing methods
- Minimize background noise
- Simplify vocabulary
- Use pre-printed outlines of material

When Students Experience Difficulty with Seeing

- Describe what you are doing
- Provide preferential seating
- Provide material in large type or Braille
- Use books on tape
- Be aware of lighting requirements
- Use black on white printed handouts
- Use tactual materials (contact a vision consultant for assistant with design) to represent concepts
- Stand away from the window glare when talking
- Give students individual copies of visual information presented to the group
- Allow extra time to complete tasks

When Students Experience Difficulty Following Classroom Rules

- Teach rules/expectations; model/role-play situations
- Post rules or expectations
- Teach skills of independence
- Be consistent
- Use proximity
- Have students set personal
- Use self-monitoring strategies
- Use positive correction prompts
- Teach the use of positive and negative consequences

When Students Experience Difficulty with Retaining and Retrieving Information

- Use multi-modalities (visual, auditory, tactile) to teach the same concept
- Teach vocabulary in context
- Use cues, prompts
- Use graphic organizers
- Use frequent repetition of key points
- Break down instructional units into smaller steps
- Show relationships among concepts through graphs, outlines, and webbing
- Highlight important information
- Use color coding to show concepts and relationships
- Use peer tutors
- Teach mnemonics as a memory tool
- Teach visual imagery
- Use rhythm, music, and movement
- Use lists
- Use matrix to organize information
- Use pictographs

When Students Experience Difficulty with Representing New Learning In Assessment

- Use a variety of authentic assessments
- Teach test-taking strategies
- Teach the format of an upcoming test
- Allow adequate time
- Allow paper-pencil tests to be taken in a different space
- Allow a variety of ways to respond, e.g., orally, pictorially, tape recording, etc.
- Establish criteria and expectations prior to instruction
- Give choices
- Assess learning over time
- Use rubrics
- Use self-assessment

Assessment Support Websites

PENNSYLVANIA DEPARTMENT OF EDUCATION
<http://www.pde.state.pa.us>

FOR INFORMATION ON:
 PSSA • PASA • PVAAS • RTI • ASSESSMENT ANCHORS



CENTER FOR APPLIED SPECIAL TECHNOLOGY
www.cast.org

NATIONAL CENTER ON STUDENT PROGRESS MONITORING
www.studentprogress.org

NATIONAL ASSOCIATION OF STATE DIRECTORS OF SPECIAL EDUCATION, INC.
www.nasdse.org

PENNSYLVANIA DEPARTMENT OF EDUCATION ACADEMIC ACHIEVEMENT REPORT
www.PAAYP.com

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
www.nces.ed.gov

PEARSON ASSESSMENTS
www.pearsonassessments.com

ABOUT.COM RUBRICS
www.7-12educators.about.com/cs/rubrics/index.htm

AUTHENTIC ASSESSMENT IN MATH
www.mathforum.org/sum94/project2.html

AUTOMATING AUTHENTIC ASSESSMENT WITH RUBRIC
www.stone.web.brevard.k12.fl.us/html/comprubric.html#Rubrics

CHICAGO PUBLIC SCHOOLS RUBRIC BANK
www.intranet.cps.k12.il.us/Assessments/Ideas_and_Rubrics/ideas_and_rubrics.html

CRESST (UCLA) SCORING RUBRICS
www.cse.ucla.edu/CRESST/pages/Rubrics.htm

ONLINE RESOURCES FOR ASSESSMENT
www.rmcdenver.com/useguide/assessme/online.htm

PALS Tasks
www.ctl.sri.com/pals/tasks.html

PROJECT BASED LEARNING CHECKLISTS
www.4teachers.org/projectbased/checklist.shtml

Project-based Learning Scoring Rubric
www.pblmm.k12.ca.us/PBLGuide/MMrubric.htm

RUBRIC BUILDER
www.landmark-project.com/classweb/tools/rubric_builder.php3

RUBRICS FOR WEB LESSONS
www.edweb.sdsu.edu/webquest/rubrics/weblessons.htm

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David Schoofield
Lia Scott
Brenda B. Taylor
Carolyn Tjoutuku
Linda Williams
Kim Lewis Wilson
Denise Wing

PUBLICATION PROJECT MANAGER

**Gwendolyn B. Lewis, Director of Special Education
Office of Specialized Services**

PROJECT COORDINATORS

Lisa C. Kaplan, Publication Coordinator

Renay Boyce
Kathryn Donahue
Joyce Dukes
Cozette Ferron
Kim Hunt

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Paul G. Vallas
Chief Executive Officer

Claudia S. Averette
Chief of Staff

Gregory E. Thornton, Ed.D.
Chief Academic Officer

Cecilia P. Cannon
Associate Superintendent
Curriculum and Instruction

School Reform Commission

James E. Nevels, Chair
Sandra Dungee Glenn
James P. Gallagher, Ph.D.
Daniel J. Whelan
Martin G. Bednarek

